

GASTROIDEA CYANEA MELSH (*Coleoptera*) PREYED
UPON BY AN HEMIPTERAN PREDATOR

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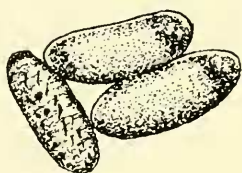
This spring, 1954, the season is two to three weeks in advance of the average growing season in this area. As a result the plants and insects are well developed and abundant. By the first of May the Sour Dock *Rumex patens* L. was a foot in height and by May 8th the leaves were being attacked by the first instar larvae of the leaf beetle *Gastroidea cyanea* Melsh. On May 10th the junior author brought into the laboratory stems and leaves of the dock on which were some of the overwintering adult beetles, spring eggs, and larvae. The yellow eggs, Figure 1, which were laid on May 10th hatched on May 13th. The young larvae commence feeding as soon as they are out of the eggs. Figure 2 is a second instar larva. No accurate information on the number of instar was obtained. Pupation was noticed on May 20th and adults were hatching by May 26-28th. By this date the docks were badly destroyed, most of the leaves had been devoured except for the veins and stems. Figure 3 is a newly emerged adult.

On the 10th of May while observing in the field the life stages of this beetle, several specimens of *Euschistus variolarius* (P. B.) were found feeding upon the larvae and oversized female adults. This is the first time we have noted this species preying upon another insect. We have not been able to find much recorded on the predaceous habits of this pentatomid. It feeds in the main upon plants such as wheat, red clover, tomatoes, grasses, peaches, peas, mullein and several other local plants. C. E. Olsen (1912) reports that this "species is said to feed on Lepidopterous larvae, and that G. W. Kirkaldy records its preying on *Pulvinaria virginicum* L. (Hem.)." Our observations definitely establish another insect host record for *E. variolarius*.

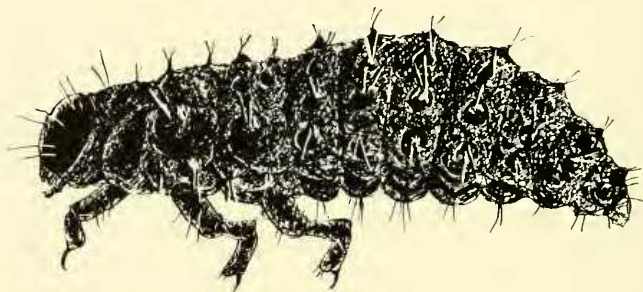
A review of the specimens of *G. cyanea* in the entomological collections show that it is widely distributed throughout the state.

(1) Contribution 141 from the Department of Zoology and Entomology.

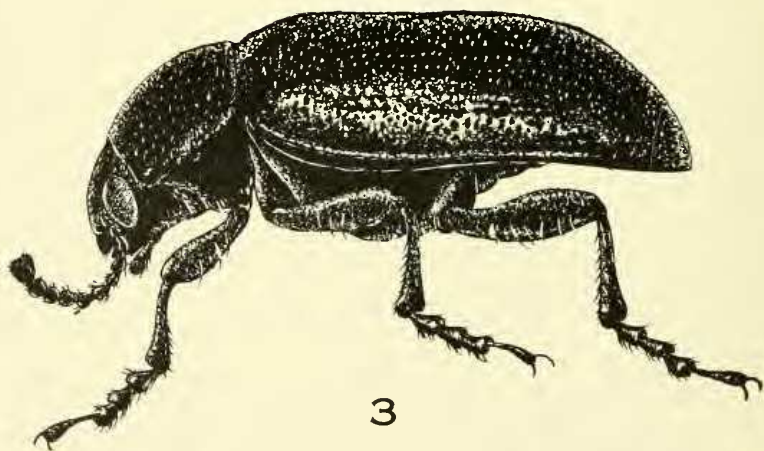
A comparison of Utah specimens with a series from Pennsylvania and several from Berkeley, California, has supported the identifica-



1



2



3

Figures 1-3 eggs, larva and adult of *Gastroidea cyanca* Melsh.
Eggs 20X; larva 10X; adult 20X.

tion of the Utah and Arizona specimens as *G. cyanea* Melsh. Rogers, 1856, considered the Central California specimens as a subspecies *caesia* of *cyanea*. The Utah specimens are morphologically similar to the Arizona and Pennsylvania ones which stand in our collection as *cyanea*.

Distribution of *G. cyanea* Melsh in Utah:

Grand Co.:—Moab, June, 1927 (A. Call)

Garfield Co.:—Aquarius Plateau, 1937 (W. W. Tanner)

Kane Co.:—Orderville, June, 1927 (V. M. Tanner)

Sanpete Co.:—Indianola, September, 1918 (V. M. Tanner)

Utah Co.:—Spanish Fork (V. M. Tanner); East side of Utah Lake, 1927 (V. M. Tanner); Provo, May, 1954 (G. Nielson and V. M. Tanner).

Washington Co.:—Central, June 15, 1922 (V. M. Tanner)
St. George, March 15, 1921; Zion National, 1925 (V. M. Tanner).

Arizona:—Kiabab Forest, July, 1927 (J. Kartchner).

REFERENCES

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1912. Contribution to an Annotated List of Long Island Insects (Hemiptera) *Journal N. Y. Ento. Soc.*, Vol. XX, pp. 48-58.

Rogers, W. Frederic

1856. Synopsis of Species of Chrysomela and Allied Genera Inhabiting the United States. *Proc. Ac. N. S. Phil.*, VIII. pp. 29-38.